Executive Summary

During the 1990s Sedona area residents became increasingly concerned about the impact of new developments and increased tourism on the area's traffic congestion. In order to preserve the quality of life that has attracted many to the area and avoid degradation of the environment, many recognized that measures needed to be taken to address these concerns without impacting the economic vibrancy of the area. The Vision Report produced in 1998, entitled "Ensuring a Livable Future: Transportation and a Strategic Vision for the Greater Sedona Community," proposed developing a public shuttle system serving both residents of the Red Rock area and visitors to Oak Creek Canyon.

The report also recommended that the City of Sedona, the U.S. Forest Service (USFS), Coconino and Yavapai Counties, and the Arizona Department of Transportation (ADOT) sponsor a follow-up study to assess the feasibility of a public shuttle system that goes beyond the conceptual design phase of the Vision Report, and determines the conditions necessary to ensure a financially and operationally viable shuttle. The primary goal of the shuttle would be to significantly reduce congestion in the area by diverting a substantial number of auto users to the shuttle system. The Nelson\Nygaard consulting team, working closely with the study sponsors and drawing on significant community input, has produced the "Sedona Shuttle Feasibility Study: Draft Final Recommended Plan" in an effort to meet this goal.

The first product of this study, the "Existing Conditions Report," suggested that a shuttle serving both residents and visitors would be feasible if sufficient incentives were in place to encourage auto users to shift to shuttle for at least some of their rides. These "supportive policies" include convenient schedules, low fares, attractive buses, and various parking restrictions, primarily in Uptown and Oak Creek Canyon, and potentially on other Forest Service land.

In the fall of 2002 the consulting team presented three potential shuttle service options in a variety of public forums. The three options were presented to the public in a newsletter that was delivered to every household in the City of Sedona in September 2002. This was followed by presentations by the team at a public Open House, an Advisory Committee meeting, a Steering Committee meeting, and League of Women Voters Forum which were all held in September and November 2002. In response to these solicitations of public comment, City staff received dozens of e-mails and letters, and a number of letters on the potential shuttle service were published in the local Red Rock News. The input in the public meetings and in written correspondence overwhelmingly favored the implementation of some type of shuttle service in Sedona, while a minority of the correspondents expressed concerns or opposition to any Sedona shuttle service. In addition, members of Action Coalition for Transportation Solutions ("ACTS") conducted a survey of teenagers and parents and met with representatives of the Sunset Village retirement community, the Chamber of Commerce, the Village of Oak Creek ("the Village"), Los Abrigados, and Tlaquepaque.

The plan recommended in this report reflects a number of basic principles of transit service design. Shuttle service in Sedona must be based on various combinations of financial investment and supportive policies or restrictions. Greater financial investment allows for service improvements such as more frequent service, longer or more routes, longer hours of operation, and/or lower fares. Supportive policies such as parking restrictions and charges provide disincentives for driving and parking a car, and incentives for riding the shuttle. The combination of these factors effectively determines shuttle ridership, a key component of a successful shuttle system.

The Plan describes a variety of funding sources at the federal, state, and local levels, and the potential application of each source to the Sedona Shuttle service. In weighing the implementation of these factors, the overall community benefit of enhancements must be taken into consideration. These benefits include improved experience for visitors to Sedona, reduced environmental impacts, increased pedestrian activity Uptown, improved quality of living for residents, benefits to Oak Creek through traffic and parking controls along the canyon corridor and SR 179, and benefits to the USFS by lowering the need for new and expanded trailhead and scenic vista parking areas (while still providing shuttle access to popular sites). As the scale of shuttle service increases, the community will also benefit from reductions in traffic congestion, which has become a source of increasing concern among many residents. While the exact impact on traffic levels of service have not been calculated, preliminary calculations for the Maximum Plan suggest that the reduction of an estimated 740 vehicles per day would result in perceivable reductions in traffic volumes. Shuttle service is likely to decrease the growth in congestion rather than significantly eliminating current trips, allowing Sedona to serve a growing tourist economy while maintaining local mobility and livability.

Organization of this Report

This document presents a Recommended Plan that provides a continuum of service options. Locating the ultimate “preferred plan” on this continuum will depend upon the presence of a variety of factors, each of which is detailed in this report. Points on the continuum include: An introductory Minimum Operating Service (Phase 1); several service enhancements included in the Enhanced Service scenario (Phase 2), which leads to a long-range Maximum Plan for optimal shuttle service (Phase 3). The report also describes the conditions that would be necessary for the service to be self-supporting. Annual shuttle ridership projections for these three scenarios range from 186,000 in the Minimum Plan to over 700,000 in the Maximum Plan.

Following the dissemination of the Recommended Plan to the Steering and Advisory Committees and the City Council, the consultants presented the Plan at the February 11, 2003, Council meeting. Based on input from that meeting, the team has finalized the implementation plan that reflects the highest degree of consensus from public officials and the community.

Key Characteristics of Proposed Service

Phase 1: Minimum Operating Service

Phase 1 represents the minimal level of service the consulting team believes is reasonable to achieve a sustainable shuttle service in the Sedona area. Resources are focused on the corridor between the Village of Oak Creek and Uptown, in order to capture the tourist market and key destinations such as the Chapel, Tlaquepaque, USFS destinations along SR179, and the Uptown commercial area. In addition, flex-route service would be provided in the West Sedona area. This type of service meets the requirements associated with the Americans with Disabilities Act (ADA), and will not require additional complementary paratransit service. The projected annual ridership under this scenario is 186,000, which will primarily be focused on visitors in the SR179 corridor. Annual operating costs are estimated at $784,000, and the subsidy level would be approximately $439,000, assuming fare revenues and parking revenues from Uptown parking meters. This level would be even lower if $1/hour meters are installed Uptown – slightly over $300,000. An estimated one-half of this subsidy could be covered by non-City funding sources. This does not include the cost of a staff person to oversee the implementation process.

The primary benefits of this scenario would be the availability of a non-auto option for tourists traveling along SR179, and basic transit service for those local residents who are transit dependent.

Key features of Phase 1 are:

Fixed-Route Service

- Three buses will operate every 30 minutes on a fixed-route between the Village and Uptown.
- ADA complementary paratransit service in this corridor will be provided by a local entity such as the Adult Community Center of Sedona (ACCS).

Flex-Route Service

- One bus will circulate every hour in West Sedona and then connect to an Uptown transfer point where passengers can transfer to the Village service.
- The flex route will be “anchored” by the Sedona Medical Center on the west and the Uptown transfer point on the east.
- Buses will primarily circulate within a ¼ mile corridor on each side of 89A.
- Buses will stop within 10 minutes of a scheduled time at 4 to 6 stops within the area.

Service Hours for both routes are as follows:

- Low Season (November to March) 8:30 AM to 6:00 PM
- High Season (April to October) 8:30 AM to 7:30 PM

Fares:

- $1.00 for a single direction with a two hour time value
- Day Pass for $2.00

Supportive Policies:

- Parking limited to four hours Uptown, with possibility of refeeding meter
- $0.50 or $1 per hour Uptown parking on SR 89A
- Creation of residential parking zone Uptown

Phase 2: Enhanced Service

This phase builds on Phase 1 through a modular approach, allowing for maximum flexibility in system design, based on funding considerations and community preferences. This scenario provides a number of benefits that substantively exceed those in the Minimum Plan:

- Reduces environmental degradation in terms of litter, trails at non-designated locations, etc.
- Visually more appealing as fewer vehicles parked throughout the canyon and other scenic locations.
- High frequencies on shuttle service would make the system attractive and easier to use.
- More local parking capacity as reduced presence of vehicles from Cottonwood.
- People with disabilities have easy access to transit system.
- Less congestion on Highways 179 and 89A.
- Oak Creek Canyon hikers will have a service option through most daylight hours.

The additional operating costs of each of these modules is indicated below. Following is a brief description of each module:

Oak Creek Canyon service: The 179 Village service is extended beyond Uptown into the canyon as far as Slide Rock State Park. Timed transfers from the canyon to the West Sedona route will be available at the Uptown Transfer Point ($212,000).

West Sedona Fixed-Route and Flex-Route Service: Fixed-route service will be added on top of the existing flex service in West Sedona. Fixed-route service will be provided

every 30 minutes along this corridor, and the flex-route will feed into the fixed-route service on 89A. This will both allow penetration into the neighborhoods and meet the complementary paratransit requirements of the ADA ($374,000).

Cottonwood to Sedona service: One or three vehicles (depending on which option is selected) will travel between the Wal-Mart in Cottonwood and the Uptown Transfer Point, and then return to Cottonwood. Depending on final scheduling details, the bus could flex south to the resort area in Sedona, and to a number of other locations in the Cottonwood Wal-Mart area (between $138,000 and $162,000).

Two service span options are recommended for consideration, depending on the transportation needs of service workers.

Option A: Peak service only: 7 AM to 9:30 AM, and noon to 2 PM, every 30 minutes

Option B: All day service, every 90 minutes

A third option could include a combination of high frequency peak hour service in the all day service plan, but this would increase the costs considerably.

In this scenario, supportive parking policies would be consistent with that described in the Minimum Scenario, including $0.50 or $1 per hour parking fees Uptown, the creation of a residential parking permit zone within ½ mile of 89A, and the provision of intercept parking lots utilizing existing parking capacity.

Phase 3: Maximum Plan

This plan exceeds the modules in Phase 2 primarily in the frequency of service and expansion of service span (hours) and area. The anticipated time frame for implementation of this plan is ten years, unless ridership and revenue projections exceed initial estimates. The plan is characterized by significant supportive policies that will create strong incentives for using the shuttle, and strong disincentives for driving into the Uptown and canyon areas. Operating costs under this scenario are estimated at $2,390,000.

The primary benefits of this Plan are:

- All of the benefits of Phase 2, but enhanced due to higher ridership volumes and much more extensive service options.
- Strong supportive policies significantly reduce environmental degradation in terms of litter, trails at non-designated locations, etc.
- Visually enhances the area, with fewer vehicle parked throughout the canyon and other scenic locations.
- High frequencies on local shuttle service and good frequencies in the Canyon provide great flexibility for users, and make system a solid alternative to driving.

- Good connections to labor and housing markets in nearby communities. Enhances tourist and resident parking capacity due to new high-frequency commute alternative for Cottonwood.
- People with disabilities have excellent access to transit system.
- Higher parking turnover at Uptown locations allows for more visitors being able to park and shop at Uptown stores.
- Less congestion on Highways 179 and 89A.
- Oak Creek Canyon hikers have service option through most daylight hours.
- Provides a travel alternative for visitors, making the Sedona area a more attractive destination for visitors.

Key service characteristics of the Maximum Plan follow:

- Service every 15 minutes between the Cultural Park and Uptown, and along the 179 corridor
- Service hours extended to 7:30 PM in the core service area (outside of Oak Creek Canyon)
- Intercept parking at $10 per vehicle
- $2 parking fees in Uptown commercial district
- Strict enforcement of parking charges, parking in non-designated areas
- Free fares on all fixed-route shuttle services in the City and the Village for local residents and those using the intercept parking lot
- $3 day passes for overnight visitors
- Fares on Cottonwood and flex-routes are unchanged
- More frequent service to Cottonwood (peak 30 minutes, off-peak 45 minute headways)
- Extension of the shuttle canyon route to Oak Creek Vista

The plan also includes other operational details such as bus stop locations, preliminary design for the Uptown Transfer Point, and parking policies.

Self-Supporting Maximum Plan

The preliminary Vision Plan completed by the previous consultant suggested that shuttle service in Sedona could be self-supporting under certain conditions. The primary means of generating sufficient funds to cover all costs and eliminate the need for public subsidies would be through fare and parking revenues. This would require strict enforcement of parking regulations and a significant increase in parking fee levels.

The consultant team conducted a sensitivity analysis to determine the level of parking fees that would be required to achieve this goal. Our analysis indicates that daily parking fees of $20 per vehicle would need to be charged at the intercept lot, while parking fees of at least $4 per hour will be required in Uptown Sedona. **These fees would likely be considered unreasonably high by potential visitors to Sedona and local residents. For this reason the Self-Supporting Plan is not recommended in this report.** However, depending on the level of public support for shuttle after the implementation of the first two phases, the annual subsidy in the long-term could be located on a continuum between the $989,000 under the Maximum Plan and the zero subsidy level indicated in the Self-Supporting Plan. Parking fees and restrictions would need to be adjusted accordingly.

Potential Revenue Enhancements and Cost Reduction Options

A number of potential enhancements could be implemented that would increase shuttle use, some representing significant additional short-term costs and while others would require limited additional costs. These include: using the Red Rock Pass in lieu of fares; elimination of parking at the Chapel and various USFS sites; coordination with the lodging industry; electric buses in the non-hilly areas; real-time information kiosks and message boards; enhanced walking environment and signage Uptown; pre-sale of tickets on the internet; and special events services.

In addition to these potential revenue-producing enhancements, the study presents a number of service reduction options that could be implemented in the short-term. These include operating reduced low season service on Fridays, Saturdays, and Sundays, or turning back the SR179 service either in the resort area or at Chapel Road.

Funding and Administration

Preliminary cost estimates indicate that the Minimum service would require approximately $784,000 annually to operate. While fare and parking revenues will recover almost one-third of the costs, other subsidies in the range of $439,000 will need to be located. The City and regional annual contribution may account for over half of this subsidy, unless federal and state funding is increased; the parking meter fee is increased to $1/hour; or if one of the potential ridership enhancements described above is adopted. Capital costs would be approximately $205,000, assuming that vehicles are amortized over five years. Estimated annual operating costs for the Maximum Plan are in the $2.4 million range.

Before the City Council decides whether to adopt one of the strategies contained in this report, the first step will be to establish a Policy Advisory Committee (PAC) and a Citizens Advisory Committee (CAC), which will focus on the issues outlined in Chapter 5. The function of the PAC would be to establish commitments between each of the participants, secure sufficient funding for project start-up, and develop a Request for Proposals to solicit an operator. The CAC will work with the PAC to ensure that the project direction remains true to the goals established at the beginning of this study.

The Plan recommends that in the short-term the City would be the appropriate lead agency for the project, working closely with some of the other key stakeholders mentioned previously. However, while the City should take the lead in the short-term, it cannot do it alone. In the long-term, a number of alternatives for the administrative entity are suggested.

It is anticipated that securing funding and contracting with an operator could take 12 to 18 months. The last chapter contains the preliminary steps that will need to be adopted to implement shuttle service.

Providing a shuttle service in the Sedona area would lead to many potential financial and environmental benefits to the community. However, securing community support for the Minimum service in the short term, and for the proposed long-term parking policies, is essential to the success of the project. Clarifying that "Do Nothing" is not a viable scenario may be critical to building community support, particularly in the context of continued growth in visitation to Uptown and the national forest areas. Merchants need more people rather than more vehicles to improve economic viability – a shuttle service and higher parking turnover can help meet these goals, even if the service cannot significantly reduce current traffic levels in the Minimum and Enhanced scenarios. The Maximum scenario will help contain growth in congestion levels, and allow continued economic growth without increasing the footprint of the auto.

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